NWS FORM E-5	U.S. DEPARTMENT OF COMMERCE	HYDROLOGIC SERVICE AREA (HSA)		
(11-88)	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	N		
(PRES. BY WSOM E-41	NATIONAL WEATHER SERVIC	ESan Angelo, T	X	
MONTHLY	Y REPORT OF RIVER AND FLOOD CONDITIONS	REPORT FOR: MONTH <b>July</b>	YEAR <b>2002</b>	
TO:	Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283	DATE August 15, 20	el Decker In Charge of HSA	
	ng occurs, include miscellaneous river conditions, such as signif , and hydrologic products issued (WSOM E-41).	icant rises, record	low stages, ice conditions, sno	VV

No flood stages were reached in this HSA for the month above.

Major Flooding occurred in the Abilene and Brownwood areas in July. It was part of the same weather system that brought record flooding to the Hill Country and south central Texas. A weak upper level low remained over central and southern Texas for the first 7 days of the month...bringing numerous showers and thunderstorms. Flood watches were in effect for all or portions of the HSA continuously from June 30<sup>th</sup> to July 8<sup>th</sup>. Most of the rain fell over eastern and northern halves of the HSA.

Up to 8 inches of rainfall fell near Coleman, Brownwood and Bangs on the 3<sup>rd</sup>. There were some evacuations in Bangs due to rising water. This water fell on the Jim Ned and Pecan Bayou basins...which flowed into Lake Brownwood. Numerous flash flood warnings were issued on the 3<sup>rd</sup> and 4<sup>th</sup>.

This rainfall set up a major flooding event on the early morning of the 6<sup>th</sup>, as the upper low over south central Texas moved northward to Brown and Callahan counties. Numerous Thunderstorms developed just after midnight across northern sections Coleman and Brown counties and southern Callahan counties...then spread westward into the Abilene area around 3 AM. Tropical rainfall rates of 2 to 3 inches per hour produced rainfall amounts of 10 to 14 inches directly over the Jim Ned and Pecan Creek basins in northern Coleman and Brown Counties...and southern sections of Callahan and Taylor counties. The rain continued through much of the morning hours. A fire station in southern Abilene reported 5.2 inches in 1 ½ hours. The Abilene ASOS reported just over 4 inches in 2 hours. This produced flooding of low water crossings and some creek flooding during the morning in Abilene. Worse flooding was to come however, as the heaviest rains had occurred to the south of Abilene, in the Buffalo Gap, Tuscola, Ovalo and Lake Abilene areas. Water from these areas flowed into Elm Creek, Cat Claw Creek, and Cedar Creek, then into to the City of Abilene. Cedar Creek, ACWT2, rose to 8.05 feet at 7 PM on the 6<sup>th</sup>. Cat Claw Creek, ACCT2 overflowed its banks, rising to 9.55 feet at 215 AM on the 7<sup>th</sup>. This set a new record for Cat Claw Creek, previously 6.60 feet. Cat Claw Creek and Cedar Creek are river gage points, but not flood points. On FM 707, where Abilene has a staff gage, Elm Creek crested at 26.9 feet above the creek bed on July 6, or 23.5 feet above the city of Abilene's flood stage. This is estimated as the water crested over the gage. This was the highest recorded since the city began taking records 40 years ago. The second highest was 21 feet in August 1995.

In Taylor County, an Abilene Reporter News article on July 10<sup>th</sup> reported 31 homes were destroyed, 339 suffered major damage and 322 received minor damage. Damage estimates were \$15 million, with about 75% of the damage in Abilene. Flood waters entered at least 623 homes and 51 business in Abilene. In Buffalo Gap, the American Red Cross reported 17 homes destroyed and 97 houses with major damage. The Red Cross also reported16 mobile homes destroyed with another 19 mobile homes suffering major damage. In Tuscola, 25 to 30 homes outside the town sustained damage.

Bayou...which empty into Lake Brownwood. Quoting the Coleman PD, "a wall of water was flowing down Jim Ned Creek." Lake Brownwood crested on Sunday morning of the 7<sup>th</sup>, 7.7 feet over its spillway. Major flooding in Brownwood begins around 6 feet over the spillway. The flooded Pecan Bayou turned much of the Brownwood business district into a giant lake. Commerce Street in Brownwood was flooded with waist deep water.

Initial estimates give by the Brownwood Bulletin on July 23<sup>rd</sup> estimated \$42 million in flood damage for Brown County. Most of the damage was around Lake Brownwood. Damage estimates for the city of Brownwood were around \$3.4 million. For the city, amounts were: \$1.4 million in damaged homes, \$1.3 million for damaged infrastructure, \$679,000 in damaged businesses. In Brownwood and Early, there were 54 homes with major damage, 6 with minor damage. Six mobile homes also had major damage. In Brownwood, up to 20 people were evacuated from their homes. There were no reports of injuries, fatalities, or looting. The public water supply was not contaminated, however, there was a back flow of the sewer system into standing flood waters. At Lake Brownwood there were 110 homes with major damage, and 40 with minor damage. Weather Service warnings did have an impact. In an article in the Abilene Reporter News on July 10th, the City Manager of Brownwood said that, "Early warnings of impending flooding gave people time to prepare and take precautions." The extra time allowed 20,000 sand bags to be laid out, preventing flood waters from entering buildings, and mitigating damage in Brownwood.

Callahan County had 1 home with major damage and 2 with minor damage. About \$400,000 was estimated in damage to roads in southern sections of the county.

In Coleman county, around Burkett, roads and fences were damaged, crops ruined and livestock missing. In the Lake Coleman area, there were 4 homes with major damage and 2 homes with minor damage.

In Jones county, 3 homes were flooded, but many county roads were washed out. An Abilene Reporter news article on August 9 reported that half of the the county's 900 miles of road were damaged by water in some way.

The most severe damage was in northwest Jones County. Jones County was seeking federal disaster status. Brown, Callahan, and Taylor counties were named as federal disaster areas.

Pecan Bayou at Brownwood was the only river forecast point that flooded. Several rivers had sharp rises and some overflowed their banks, however. Pecan Bayou at Mullin rose to 37.66 feet on the 9<sup>th</sup> at 412 AM (Bank full for Mullin is 20 feet and flood stage is 40 ft). Hubbard Creek below Albany rose to 20.11 ft on July 7 at 315 PM. The Clear Fork of the Brazos at Ft. Griffin rose to 16.25 ft on the 9<sup>th</sup> at 430 AM. California Creek near Stamford rose to 22.50 ft on the 8<sup>th</sup> at 630 PM. The Colorado River at San Saba rose to 19.68 ft on the 10<sup>th</sup> at 1230 PM. The North Concho River at Carlsbad rose to 8.94 ft on the 7<sup>th</sup>.

On the 14<sup>th</sup> numerous showers and thunderstorms redeveloped due to another upper level low. A band of heavy rainfall of 3 to 6 inches occurred from near Crews to just north of the O H Ivie reservoir...then east across extreme southern Coleman and northeast Mcculloch counties. Much of San Saba county was also covered in 3 to 6 inch rains. Some locations...near Mercury in northeast McCulloch and areas north and southwest of Richland Springs had 6 to 8 inches estimated by radar. Some roads were flooded near San Saba and County Road 340 near Richland Springs was washed out by water. The heavy rainfall moved into Kimble county during the afternoon...closing a farm to market road east of Segovia.

July was a wet month for a large portion of the HSA. Abilene received 8.04 inches of rainfall in July, a new monthly record. This was 6.34 inches above its normal of 1.7 inches. The yearly total is 18.19 inches for Abilene, 5.42 inches above normal. The July rainfall for San Angelo was 2.02 inches. This is 0.92 inches above its normal of 1.10 inches. San Angelo's yearly rainfall is 6.41 inches, or 4.89 inches below normal.

The water did a lot of good and eased the drought in portions of the HSA. Lake Coleman rose to 1724.10 feet at 930 AM on the 7<sup>th</sup>. This is 6.6 ft over its conservation level and just under 2 feet below its emergency spillway of 1726 ft. The lake increased its storage capacity by 37,000 feet, to 53,740 acre feet. In Taylor county, Lake Abilene, Kirby, and Lytle lakes, which were dry or at extremely low levels, now contain water. The lakes acted as catchments to reduce flood damage in Abilene. The water also drained into Lake Fort Phantom, north of Abilene, increasing its storage by over 33,000 acre-ft.. Lake Stamford picked up over 10,000 acre-ft..

Despite record flooding in parts of the HSA, a hydrologic drought remains in western sections of the HSA, and people continue to suffer economically. A power plant on Oak Creek Reservoir in Coke County is periodically shutting down due to lack of water. Once the water supply to Sweetwater, the Oak Creek Reservoir is nearly dry. Sweetwater has relied on well water since the beginning of the year. In San Angelo, 30 employees of Ranchers' Lamb of Texas, a lamb processing center, have been laid off due to extensive drought in Texas and the rest of the West.

## Rainfall Totals for July

Abilene ASOS	8.04	Glen Cove	4.73	Sonora	8.04
Abilene #2	11.57	Hamlin	4.40	Stamford	4.99
Albany	6.84	Haskell	6.44	Sterling City	2.35
Acton Ranch	5.11	S. Llano Pk	4.06	Sterling City 11NE	1.36
Anson	7.87	Lk. Abilene	15.28	Taylor Ranch	8.55
Ballinger	5.34	Lawn	11.33	Telegraph	4.06
Brady	4.42	Mason	5.58	Throckmorton	7.78
Brownwood	4.91	Menard	3.12	Trent	2.18
Burkett	19.11	O.C. Fisher	4.99	Water Valley	5.21
Coleman	10.52	Ozona	1.75	Water Valley	3.69
Concho Park	5.21	Putnam	9.68	Winters	2.42
El Dorado 12N	3.75	Rosco	1.82	Woodson	6.50
Ft Griffin	8.73	Rotan	2.51		
Ft McKavett	3.80	San Saba 7NW	9.84		
Funk Ranch	1.62	Silver Valley	7.81		

## Reservoir Storage

Reservoir	Aug 1st Storage - Acre Ft	% Capacity	July 1 <sup>st</sup> Storage
O.C. Fisher	4830	4	2980
Twin Buttes	6020	3	6210
Spence	53700	11	54320
O.H. Ivie	237000	43	226100
Ft Phantom Hi	II 51930	74	28240
Lake Stamford	46090	87	36040
Brownwood	132500	100	109500

## Products Issued:

LBBFLWSJT	4 (Flood Warnings - River Points)
	6 (Flood Warnings - Areal)
LBBFLSSJT	17 (Flood Statements - Flood Points)
	8 (Flood Statements - Areal)
	1 (Small Stream Flood Advisory)
LBBRVSSJT	19 (Hydrologic Statements)
LBBESFSJT	2 (River Flood Outlooks)
LBBRVASJT	31 (Daily River Summary)
LBBRVDSJT	31 (Daily Lake Summary)